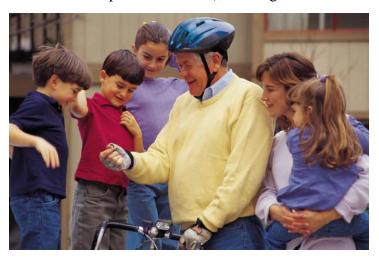
## **Colorectal Cancer in Virginia**

#### Risk Factors<sup>1</sup>

- Various genetic and lifestyle factors are associated with colorectal cancer risk. Factors that increase
  the risk of developing colorectal cancer include age (over 90% of colorectal cancers are diagnosed
  in people 50 and older), personal/family history of colorectal polyps or cancer, certain genetic
  mutations, overweight/obesity, sedentary lifestyle, high red/processed meat consumption, and
  heavy alcohol use.
- Steps that individuals can take to decrease their risk of developing colorectal cancer include being
  physically active, maintaining a healthy weight, eating a healthy diet (high in fruits and vegetables
  and low in red/processed meats), limiting alcohol consumption, and not smoking.



#### Warning Signs and Symptoms<sup>1</sup>

- There are no early warning signs/symptoms of the disease; hence colorectal screening is especially important for detecting the disease at an early stage when it is most treatable.
- Later stage symptoms of the disease include blood in the rectum/in the stool, bowel habit changes, and abdominal discomfort/cramping.

### Early Detection<sup>1</sup>

• Screening (using one of several testing options) is recommended starting at age 50 for adults at average risk of the disease to look for cancer as well as precancerous polyps that could progress to cancer.

#### **Colorectal Cancer Facts**

- Colorectal cancer is the third most commonly diagnosed cancer (excluding non-melanoma skin cancer) and the third leading cause of cancer death among men and women in the United States.
   One in eighteen men and one in twenty women will be diagnosed with colorectal cancer during their lifetime. Colorectal cancer incidence and mortality rates have fallen over the past couple of decades.<sup>1</sup>
- Over the 2004-2008 time period, the incidence rate of colorectal cancer in Virginia was 45.1 cases per 100,000.<sup>2</sup> (U.S. rate=47.2 cases per 100,000)<sup>3</sup>
- Figure 1 shows colorectal cancer incidence rates by health district in Virginia. Central Virginia Pittsylvania/Danville, and Portsmouth had the highest incidence rates of colorectal cancer among the 35 health districts.<sup>2</sup>

- Over the 2005-2009 time period, the mortality rate from colorectal cancer in Virginia was 16.7 deaths per 100,000.<sup>4</sup> (U.S. rate=16.9 deaths per 100.000)<sup>5</sup>
- Figure 2 shows colorectal cancer mortality rates by health district in Virginia. Portsmouth, Chesterfield, and Western Tidewater had the highest mortality rates from colorectal cancer among the 35 health districts.<sup>4</sup>

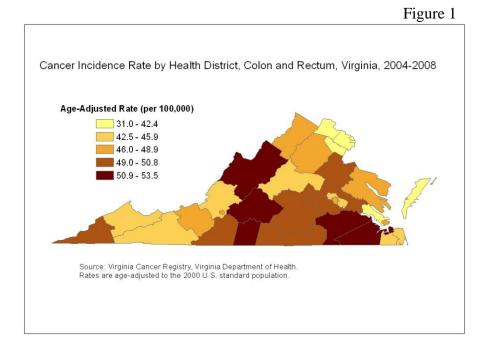
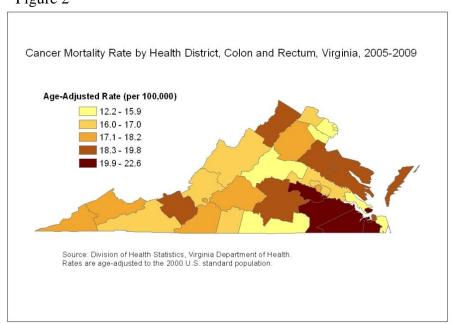
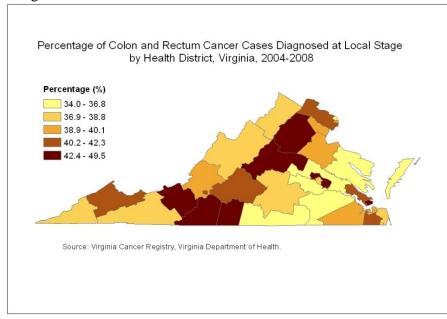


Figure 2



- Incidence rates in Virginia were higher in men compared to women and in African-Americans compared to whites. African-American men were diagnosed with colorectal cancer at an especially high rate. Incidence rate (per 100,000 population) = 65.5 for African-American men, 50.0 for white men, 48.8 for African-American women, and 37.7 for white women.<sup>2</sup>
- Mortality rates in Virginia were higher in men compared to women and in African-Americans compared to whites. African-American men died from colorectal cancer at an especially high rate. Mortality rate (per 100,000 population) = 29.8 for African-American men, 19.9 for African-American women, 18.6 for white men, and 13.4 for white women.
- Colorectal cancer has a five-year relative survival rate of 90 percent if diagnosed in its earliest (local) stage when it is most curable.<sup>1</sup> In Virginia, 40 percent of colorectal cancer diagnosed was local stage.<sup>2</sup>

Figure 3



- Figure 3 shows the percentage of colorectal cancer cases diagnosed local stage by health district in Virginia.

  Arlington, Eastern Shore, and Chesterfield had the lowest percentage of colorectal cancer cases diagnosed local stage among the 35 health districts.<sup>2</sup>
- The percentage of colorectal cancer cases diagnosed local stage was low for whites (41%) and African-Americans (37%).<sup>2</sup>

Figure 4

- According to 2008 health behavior survey data, 70% of Virginia adults aged 50 years and older reported ever having had an endoscopy (e.g. colonoscopy, sigmoidoscopy). (U.S. average=62%)<sup>6</sup>
- Figure 4 shows the prevalence of colorectal cancer screening (sigmoidoscopy/endoscopy within 5 years and/or blood stool test within one year among adults aged 50 years and older) by health district in Virginia.

Colorectal Cancer Screening by Health District,
Adults 50 and Older, Virginia, 2006-2008

Percent (%)

47.0 - 54.4

54.5 - 58.0

58.1 - 62.7

62.8 - 65.1

65.2 - 79.2

Source: Virginia Behavioral Risk Factor Surveillance System. Percentages are weighted. "Colorectal cancer screening" refers to adults 50 and older who had either endoscopy (sigmoidoscopy, colonoscopy) within the past five years or a home blood stool test in the past year.

Lenowisco, New River, and Southside had the lowest percentages of colorectal screening among the 35 health districts.<sup>7</sup>

• Colorectal screening rates were lower among adults who were less educated, lower income, and uninsured but did not differ significantly between African-Americans and whites.<sup>7</sup>

# **Colorectal Cancer in Virginia**

• In Virginia in 2009, there were 3,093 inpatient hospitalizations for colorectal cancer, at a total cost of over \$156 million. The average length of stay was 8.0 days and the average charge per stay was \$50,470.8

<sup>1</sup>American Cancer Society Cancer Facts & Figures 2009 (http://www.cancer.org)



<sup>&</sup>lt;sup>2</sup> Virginia Cancer Registry. Based on combined data from 2004-2008. Rates are age-adjusted to the 2000 U.S. standard population.

<sup>&</sup>lt;sup>3</sup>Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). *SEER Cancer Statistics Review*, 1975-2008, National Cancer Institute. Bethesda, MD, <a href="http://seer.cancer.gov/csr/1975\_2008/">http://seer.cancer.gov/csr/1975\_2008/</a>, based on November 2010 SEER data submission, posted to the SEER web site, 2011. Based on combined data from 2004-2008. Rates are aga-adjusted to the 2000 U.S. standard population.

<sup>&</sup>lt;sup>4</sup> VDH Division of Health Statistics. Based on combined data from 2005-2009. Rates are age-adjusted to the 2000 U.S. standard population.

<sup>&</sup>lt;sup>5</sup> Xu JQ, Kochanek KD, Murphy SL, Tejada-Vera B. Deaths: Final data for 2007. National vital statistics reports; vol 58 no 19. Hyattsville, MD: National Center for Health Statistics. 2010. Available from:

http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58 19.pdf. National rate is the 2007 age-adjusted rate, which is comparable to the state five-year interval midpoint.

<sup>&</sup>lt;sup>6</sup> Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008. (http://apps.nccd.cdc.gov/brfss) Accessed 6/2/10.

<sup>&</sup>lt;sup>7</sup> Virginia Behavioral Risk Factor Surveillance System. Based on 2006 and 2008 (pooled) data. Percentages are population-weighted.

<sup>&</sup>lt;sup>8</sup> VDH Virginia Health Information Hospital Discharge Patient-Level Dataset.